# Human Physiology APK 2105

Department of Applied Physiology and Kinesiology

Dr. Stephen Dodd

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**Course Objectives:** The term physiology is defined as the study of bodily functions and the mechanisms that control them. This course is designed introduce you to body functions at the cellular, tissue, organ and systems level with emphasis on the mechanisms of operation.

Lecture: The course is designed in a lecture/lab format. The lecture begins with an introduction to basic concepts such as chemical structures, histology, membrane transport, and diffusion principles. The cell is the focus of this section since it is the basic functional unit of the body. The class then enters into the areas of cell respiration, metabolism, and endocrine function. Next, the physiology of the central (CNS) and peripheral (PNS) nervous systems will be explored. Finally, the class explores the physiology of the muscular, cardiovascular, respiratory, urinary, and immune systems.

**Labs**: The lab times and location are on the UF schedule of classes. Labs will NOT meet the first week of class. Your lab instructor, syllabus and schedule will be posted before the first lab meets.

Lecture Notes: Will be available in the "Lecture Notes" section of the SAKAI site before the first lecture meets.

#### **Required Course Textbook:**

Stanfield, CL. *Principles of Human Physiology* 4<sup>nd</sup> ed. Pearson: San Francisco, CA. (Also available as an eBook). Packaged with an access code for entering the website "Mastering A & P".

#### **Lecture Examinations:**

All lecture examinations will be objective (multiple choice and true-false questions) and will center around **topics covered in class**. If a student misses an exam for ANY reason, a make-up exam will be given at the end of the term. A picture I.D. may be required for entrance into, or exit from, all of the examinations. The use of cell phones (or any electronic device) is prohibited during exams. Any cell phone or electronic device used

during an exam will be considered a violation of the student honor code and will result in penalties.

## If you miss an exam for ANY reason, a comprehensive make-up exam will be given at the end of the term that will count for ANY and ALL tests missed.

Honor Policy: The University policy on academic honesty is clear and reads as follows: "We the members of the University of Florida Community, pledge ourselves and our peers to the highest standard of honesty and integrity." This includes <u>ALL</u> COURSE EXAMS, REPORTS, and ASSESSMENTS! Note: It is also considered an honor violation for students to purchase, use, and/or possess previously USED class Lab Manuals or PhysioEX CD-Rom booklets. Students violating this policy will be sanctioned according to the Committee on Student Conduct, receive a grade penalty for the course or some other penalty for failure to abide by this standard of conduct.

### **Other Class Policies:**

- Please turn off your cell phone before you enter class. Being attentive and respectful of your classmates and instructor is expected of all students. Those who choose to ignore this policy will be directed to leave the class and not allowed to return until having a conference with the instructor.

- Lectures may be recorded, but only for use of students in this class.

**Class Topic (Chapter)** 

Course Intro and Intro to Physiol (1)

Cell Structure and Function (2)

Cell Metab (3)

Membrane Transport (4) Chem Messenger (5)

Endocrine (6)

Regulation of Metabolism (21)

Neural Function (7 & 8)

Selected Nervous System Topics (9, 10, 11)

Muscle (12)

Cardiovascular (13 & 14)

Blood (15) Ventilation (16) Gas Exchange (17)

Gas Exchange 17

Renal function (18) - Electrolyte Balance (19)